

REMARKS/ARGUMENTS

The following remarks are responsive to the Office Action of January 31, 2008 and the January 26, 2010 Decision on Appeal, in which claims 1-22, 25-70 and 73-75 are pending, claims 28-56 are withdrawn from consideration, claims 1-22, 25-27, 57-70 and 73 are rejected and claims 74-75 are allowed. Reconsideration, examination and allowance of all pending claims are respectfully requested.

Claim Amendments

With this paper, claims 1, 57 and 73 are amended and claims 76-78 are introduced. Support for the claim amendments may be found, for example, in the claims as filed and in paragraphs 32 and 35 of the application as published. No new matter has been introduced.

Claim Rejections Under 35 U.S.C. §103

Claims 1-9, 11, 13, 15, 16, 18-21, 25-26, 57, 59, 61, 63-64, 66-68, and 73 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Ren et al.*, U.S. Patent 6,045,547 (hereinafter “Ren”), in view of *Viera*, U.S. Patent 6,039,699. Applicants respectfully traverse this rejection.

In the Decision on Appeal, the board found that the Examiner “correctly construes the ‘forming’ feature as including a product made by separately forming the inner and outer portions and subsequently bonding them together” and also found that “the Examiner’s stated case of obviousness does not necessarily rely on using Ren’s co-extrusion method to form the metallic materials. (DoA, pp. 6 and 7.)

In response thereto, applicants have amended claim 1 to recite “a composite medical device produced by a process comprising constructing a composite elongate shaft by co-drawing or co-extruding a metallic outer portion comprising a first metallic material about a metallic inner portion” and have made similar amendments to the other rejected independent claims.

As taught in the specification, such forming of one layer about another creates a composite shaft of unitary construction. Specification, page 8, lines 23-29. A composite is a material made of distinct components, such as fiberglass. Here, the composite material of the

shaft is created by forming one layer about another. Such a process creates the composite by forming a metallic bond between the two layers along the length of the shaft. This metallic bond along the length of the shaft common to both layers is a structural difference between the claimed invention and the cited prior art, and is not taught or suggested by the prior art.

Moreover, the co-drawing or co-extruding of the metal layers of the claimed invention is not obvious over the cited art (nor was found to be so by the Board of Appeals). In the September 27, 2007 Office Action, claims 6 and 7 were rejected based on Ren's teaching of a method of making its multilayer polymeric catheter tube by using an extruder having a co-extrusion head. (Claims 6 and 7 are directed to co-drawing or co-extruding the inner and outer portions to produce the composite shaft.) However, the catheter tube of Ren is polymeric and Ren does not teach metal processing methods. Where Ren teaches components that may be metal (wire braid in col. 3, l. 15; core wire in col. 5, l. 5), Ren is silent as to manufacturing methods. If a person of skill in the art were, for the sake of argument, to look at Ren and Viera and then decide to make a multi-layer metallic catheter tube, the person of skill in the art would not look to the polymer processing techniques of Ren to make a metal tube.

A person of skill in the art understands that polymers and metals are processed using very different techniques. Though the term extrusion is used with respect to both a polymer processing technique and a metal process technique, the polymer extrusion process is very different from the metal extrusion process. One basic, key difference is that polymers are extruded in a molten state and metals are extruded in a solid state and under much higher pressure. Another difference is that in a polymeric coextrusion process as described by Ren, material selection, a tie layer and heat can be relied upon to make a bond between layers. This is not the case in a metal extrusion process. Because the metal is not heated to a molten state, pressure, forcing the layers together, is important to make a bond to form a composite material.

Thus, one of skill in the art looking to replicate the Ren catheter in metal would look to the metal processing techniques discussed in Ren, where the two layers are formed separately and then joined using an adhesive, welding, brazing or soldering technique. Because neither reference teaches a metal co-extrusion process or a co-drawing process,

applicant respectfully submits that all claim elements have not been taught or suggested and that no prima facie case of obviousness has been established.

Applicants therefore submit that independent claims 1, 57 and 73 are allowable for at least the reasons stated above. As claims 2--9, 11, 13, 15, 16, 18-21, 25-26, 59, 61, 63-64, 66-68 and 76-78 depend from one of the independent claims and contain additional elements, these claims are submitted to be in condition for allowance as well.

Claims 12, 17, 60 and 65 were rejected under 35 USC 103(a) as being unpatentable over Ren and Viera as applied to claims 1 and 57 above and further in view of Obrien, WO 99/58184; and claims 14 and 62 were rejected under 35 USC 103(a) as being unpatentable over Ren and Viera as applied to claims 1 and 57 above and further in view of Rooney, US 6,306,105. Applicants respectfully traverse these rejections.

For at least the reasons that these claims depend from one of claims 1 and 57, which applicants submit are allowable and contain additional elements, applicants submit that these claims are in condition for allowance as well.

Further examination and reconsideration are respectfully requested. It is respectfully submitted that the claims are now in condition for allowance, and issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,
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By his attorney,

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